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PTO/SB/05 (11-00)
Approved for use through 10/31/2002. OMB 0651-0032
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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. 5000-1-414
First Inventor Jeong-Hwan SONG et al.
Title ATHERMAL ARRAYED....
Express Mail Label No. EV 326742096 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 15]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 2]
5. Oath or Declaration [Total Pages 4]
 - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 18 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ paper
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☒ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☒ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other:

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____

Prior application information: Examiner _____ Group Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label 33942 or ☐ Correspondence address below
(Insert Customer No. or Attach bar code label here)

Name _____
Address _____
City _____ State _____ Zip Code _____
Country _____ Telephone _____ Fax _____

Name (Print/Type) Steve S. Cha Registration No. (Attorney/Agent) 44,069
Signature _____ Date 7/23/03

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

08306 U.S. PRO
10/625161
07/23/03

17698 U.S. PTO
07/23/03

FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 790.00

Complete if Known

| | |
|----------------------|------------------------|
| Application Number | Not yet assigned |
| Filing Date | July 23, 2003 |
| First Named Inventor | Jeong-Hwan SONG et al. |
| Examiner Name | Not yet assigned |
| Art Unit | Not yet assigned |
| Attorney Docket No. | 5000-1-414 |

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: 502-470

Deposit Account Name: CHA & REITER

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments

☒ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION (continued)

3. ADDITIONAL FEES

| Large Entity | | Small Entity | | Fee Description | | Fee Paid |
|--------------|----------|--------------|----------|--|--|----------|
| Fee Code | Fee (\$) | Fee Code | Fee (\$) | | | |
| 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath | | |
| 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet | | |
| 1053 | 130 | 1053 | 130 | Non-English specification | | |
| 1812 | 2,520 | 1812 | 2,520 | For filing a request for <i>ex parte</i> reexamination | | |
| 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action | | |
| 1805 | 1,840* | 1805 | 1,840* | Requesting publication of SIR after Examiner action | | |
| 1251 | 110 | 2251 | 55 | Extension for reply within first month | | |
| 1252 | 410 | 2252 | 205 | Extension for reply within second month | | |
| 1253 | 930 | 2253 | 465 | Extension for reply within third month | | |
| 1254 | 1,450 | 2254 | 725 | Extension for reply within fourth month | | |
| 1255 | 1,970 | 2255 | 985 | Extension for reply within fifth month | | |
| 1401 | 320 | 2401 | 160 | Notice of Appeal | | |
| 1402 | 320 | 2402 | 160 | Filing a brief in support of an appeal | | |
| 1403 | 280 | 2403 | 140 | <i>Request for oral hearing</i> | | |
| 1451 | 1,510 | 1451 | 1,510 | Petition to institute a public use proceeding | | |
| 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable | | |
| 1453 | 1,300 | 2453 | 650 | Petition to revive - unintentional | | |
| 1501 | 1,300 | 2501 | 650 | Utility issue fee (or reissue) | | |
| 1502 | 470 | 2502 | 235 | Design issue fee | | |
| 1503 | 630 | 2503 | 315 | Plant issue fee | | |
| 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | | |
| 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | | |
| 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | | 40.00 |
| 1809 | 750 | 2809 | 375 | <i>Filing a submission after final rejection (37 CFR 1.129(a))</i> | | |
| 1810 | 750 | 2810 | 375 | For each additional invention to be examined (37 CFR 1.129(b)) | | |
| 1801 | 750 | 2801 | 375 | Request for Continued Examination (RCE) | | |
| 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | | |

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 40.00

FEE CALCULATION

1. BASIC FILING FEE

| Large Entity | | Small Entity | | Fee Description | Fee Paid |
|--------------|----------|--------------|----------|------------------------|--------------|
| Fee Code | Fee (\$) | Fee Code | Fee (\$) | | |
| 1001 | 750 | 2001 | 375 | Utility filing fee | 750.00 |
| 1002 | 330 | 2002 | 165 | Design filing fee | |
| 1003 | 520 | 2003 | 260 | Plant filing fee | |
| 1004 | 750 | 2004 | 375 | Reissue filing fee | |
| 1005 | 160 | 2005 | 80 | Provisional filing fee | |
| SUBTOTAL (1) | | | | | (\$) 750.00 |

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims: 19

Independent Claims: 3

Multiple Dependent: _____

Extra Claims: -20** = _____ X _____ = _____


Fee from below: _____

Fee Paid: _____

| Large Entity | | Small Entity | | Fee Description | Fee Paid |
|--------------|----------|--------------|----------|--|------------|
| Fee Code | Fee (\$) | Fee Code | Fee (\$) | | |
| 1202 | 18 | 2202 | 9 | Claims in excess of 20 | |
| 1201 | 84 | 2201 | 42 | Independent claims in excess of 3 | |
| 1203 | 280 | 2203 | 140 | Multiple dependent claim, if not paid | |
| 1204 | 84 | 2204 | 42 | ** Reissue independent claims over original patent | |
| 1205 | 18 | 2205 | 9 | ** Reissue claims in excess of 20 and over original patent | |
| SUBTOTAL (2) | | | | | (\$) 0.00 |

**or number previously paid, if greater; For Reissues, see above

SUBMITTED BY

| | | | | | |
|-------------------|---|-----------------------------------|---------|-----------|--------------|
| Name (Print/Type) | Steve S. Cha | Registration No. (Attorney/Agent) | 44,069 | Telephone | 201-518-5518 |
| Signature |  | Date | 7/23/03 | | |

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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